RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/549, 592_

Source: _PCT_

Date Processed by STIC: _10/03/2005_

ENTERED

PCT

RAW SEQUENCE LISTING   DATE: 10/03/2005
PATENT APPLICATION: US/10/549,592   TIME: 14:15:41

Input Set : A:\Sequence Listing ASCII, Docket No. 0609.5150000.ST25.txt
Output Set: N:\CRF4\10032005\J549592.raw

```
 3 <110> APPLICANT: Gardella, PhD, Thomas J.
 4       Potts, John T.
 5       Kronenberg, H.M.
 6       Shimizu, N.
 7       Carter, P.
 9 <120> TITLE OF INVENTION: Conformationally Constrained Parathyroid Hormones With
10       Alpha Helix Stabilizers
12 <130> FILE REFERENCE: 0609.515PC00
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/549,592
C--> 14 <141> CURRENT FILING DATE: 2005-09-19
14 <160> NUMBER OF SEQ ID NOS: 52
16 <170> SOFTWARE: PatentIn version 3.2
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 14
20 <212> TYPE: PRT
21 <213> ORGANISM: Artificial Sequence
23 <220> FEATURE:
24 <223> OTHER INFORMATION: Mutated hPTH
27 <220> FEATURE:
28 <221> NAME/KEY: MISC_FEATURE
29 <222> LOCATION: (1)..(1)
30 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Gly,
Ser or
31       Ala
33 <220> FEATURE:
34 <221> NAME/KEY: MISC_FEATURE
35 <222> LOCATION: (1)..(14)
36 <223> OTHER INFORMATION: At least one Xaa is an alpha helix stabilizing residue
38 <220> FEATURE:
39 <221> NAME/KEY: MISC_FEATURE
40 <222> LOCATION: (1)..(14)
41 <223> OTHER INFORMATION: At least one Xaa is 1 aminocyclopropane 1 carboxylic acid,
42       1 amino cyclobutane carboxylic acid,
43       1 aminocyclopentane 1 carboxylic acid,
44       1 amino cyclohexane carboxylic acid or alpha, alpha diethylglycine
47 <220> FEATURE:
48 <221> NAME/KEY: MISC_FEATURE
49 <222> LOCATION: (1)..(14)
50 <223> OTHER INFORMATION: At least one Xaa is 1 aminocyclopropane 1 carboxylic acid,
51       1 amino cyclobutane carboxylic acid,
52       1 aminocyclopentane 1 carboxylic acid, 1 amino cyclohexane
53       carboxylic acid or alpha, alpha diethylglycine
55 <220> FEATURE:
56 <221> NAME/KEY: MISC_FEATURE
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Output Set: **N:\CRF4\10032005\J549592.raw**

57 <222> LOCATION: (3)..(3)
58 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Ala or
Ser
60 <220> FEATURE:
61 <221> NAME/KEY: MISC_FEATURE
62 <222> LOCATION: (10)..(10)
63 <223> OTHER INFORMATION: Xaa can represent Ala, Gln or Asn
65 <220> FEATURE:
66 <221> NAME/KEY: MISC_FEATURE
67 <222> LOCATION: (11)..(11)
68 <223> OTHER INFORMATION: Xaa can represent Arg, Har or Leu
70 <220> FEATURE:
71 <221> NAME/KEY: MISC_FEATURE
72 <222> LOCATION: (12)..(12)
73 <223> OTHER INFORMATION: Xaa can represent alpha helix stabilizing residue, Ala or Gly
75 <220> FEATURE:
76 <221> NAME/KEY: MISC_FEATURE
77 <222> LOCATION: (13)..(13)
78 <223> OTHER INFORMATION: Xaa can represent alpha helix stabilizing residue or Lys
80 <220> FEATURE:
81 <221> NAME/KEY: MISC_FEATURE
82 <222> LOCATION: (14)..(14)
83 <223> OTHER INFORMATION: Xaa can represent alpha helix stabilizing residue, Trp or His
85 <220> FEATURE:
86 <221> NAME/KEY: MOD_RES
87 <222> LOCATION: (14)..(14)
88 <223> OTHER INFORMATION: AMIDATION
90 <400> SEQUENCE: 1
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93 1   5   10
96 <210> SEQ ID NO: 2
97 <211> LENGTH: 14
98 <212> TYPE: PRT
99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Mutated hPTH
105 <220> FEATURE:
106 <221> NAME/KEY: MISC_FEATURE
107 <222> LOCATION: (1)..(1)
108 <223> OTHER INFORMATION: Xaa can represent an alpha stabilizing residue, Gly, Ser or
Ala
110 <220> FEATURE:
111 <221> NAME/KEY: MISC_FEATURE
112 <222> LOCATION: (1)..(3)
113 <223> OTHER INFORMATION: At least one Xaa is an alpha helix stabilizing residue
115 <220> FEATURE:
116 <221> NAME/KEY: MISC_FEATURE
117 <222> LOCATION: (1)..(3)
118 <223> OTHER INFORMATION: At least one Xaa is 1 aminocyclopropane 1 carboxylic acid,
119   1 amino cyclobutane carboxylic acid,
120   1 aminocyclopentane 1 carboxylic acid,

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Output Set: N:\CRF4\10032005\J549592.raw

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121        1 amino cyclohexane carboxylic acid or alpha, alpha diethylglycine
124 <220> FEATURE:
125 <221> NAME/KEY: MISC_FEATURE
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127 <223> OTHER INFORMATION: Xaa can represent an alpha stabilizing residue, Ala or Ser
129 <220> FEATURE:
130 <221> NAME/KEY: MISC_FEATURE
131 <222> LOCATION: (11)..(11)
132 <223> OTHER INFORMATION: Xaa represents homoarginine
134 <220> FEATURE:
135 <221> NAME/KEY: MOD_RES
136 <222> LOCATION: (14)..(14)
137 <223> OTHER INFORMATION: AMIDATION
139 <400> SEQUENCE: 2
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146 <211> LENGTH: 14
147 <212> TYPE: PRT
148 <213> ORGANISM: Artificial Sequence
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151 <223> OTHER INFORMATION: [Aib 1,3, M]PTH(1 14)
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155 <221> NAME/KEY: MISC_FEATURE
156 <222> LOCATION: (1)..(1)
157 <223> OTHER INFORMATION: Xaa represents alpha aminoisobutyric acid
159 <220> FEATURE:
160 <221> NAME/KEY: MISC_FEATURE
161 <222> LOCATION: (3)..(3)
162 <223> OTHER INFORMATION: Xaa represents alpha aminoisobutyric acid
164 <220> FEATURE:
165 <221> NAME/KEY: MISC_FEATURE
166 <222> LOCATION: (11)..(11)
167 <223> OTHER INFORMATION: Xaa represents homoarginine
169 <220> FEATURE:
170 <221> NAME/KEY: MOD_RES
171 <222> LOCATION: (14)..(14)
172 <223> OTHER INFORMATION: AMIDATION
174 <400> SEQUENCE: 3
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177 1               5                   10
180 <210> SEQ ID NO: 4
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182 <212> TYPE: PRT
183 <213> ORGANISM: Artificial Sequence
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189 <220> FEATURE:
190 <221> NAME/KEY: MISC_FEATURE
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195 <221> NAME/KEY: MISC_FEATURE
196 <222> LOCATION: (11)..(11)
197 <223> OTHER INFORMATION: Xaa represents homoarginine
199 <220> FEATURE:
200 <221> NAME/KEY: MOD_RES
201 <222> LOCATION: (14)..(14)
202 <223> OTHER INFORMATION: AMIDATION
204 <400> SEQUENCE: 4
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210 <210> SEQ ID NO: 5
211 <211> LENGTH: 14
212 <212> TYPE: PRT
213 <213> ORGANISM: Artificial Sequence
215 <220> FEATURE:
216 <223> OTHER INFORMATION: Mutated hPTH
219 <220> FEATURE:
220 <221> NAME/KEY: MISC_FEATURE
221 <222> LOCATION: (1)..(1)
222 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Gly,
Ser or
223         Ala
225 <220> FEATURE:
226 <221> NAME/KEY: MISC_FEATURE
227 <222> LOCATION: (1)..(14)
228 <223> OTHER INFORMATION: At least one Xaa is an alpha helix stabilizing residue
230 <220> FEATURE:
231 <221> NAME/KEY: MISC_FEATURE
232 <222> LOCATION: (1)..(14)
233 <223> OTHER INFORMATION: At least one Xaa is 1 aminocyclopropane 1 carboxylic acid,
234         1 amino cyclobutane carboxylic acid,
235         1 aminocyclopentane 1 carboxylic acid, 1 amino cyclohexane
236         carboxylic acid or alpha, alpha diethylglycine
238 <220> FEATURE:
239 <221> NAME/KEY: MISC_FEATURE
240 <222> LOCATION: (3)..(3)
241 <223> OTHER INFORMATION: Xaa can represent alpha helix stabilizing residue, Ala or
Ser
243 <220> FEATURE:
244 <221> NAME/KEY: MISC_FEATURE
245 <222> LOCATION: (6)..(6)
246 <223> OTHER INFORMATION: Xaa can represent Ala, Gln or Asn
248 <220> FEATURE:
249 <221> NAME/KEY: MISC_FEATURE
250 <222> LOCATION: (10)..(10)
251 <223> OTHER INFORMATION: Xaa can represent Ala, Gln or Asn
253 <220> FEATURE:
254 <221> NAME/KEY: MISC_FEATURE
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      256 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Har or
Arg
      258 <220> FEATURE:
      259 <221> NAME/KEY: MISC_FEATURE
      260 <222> LOCATION: (12)..(12)
      261 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue or Lys
      263 <220> FEATURE:
      264 <221> NAME/KEY: MISC_FEATURE
      265 <222> LOCATION: (14)..(14)
      266 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Trp or
His
      268 <220> FEATURE:
      269 <221> NAME/KEY: MOD_RES
      270 <222> LOCATION: (14)..(14)
      271 <223> OTHER INFORMATION: AMIDATION
      273 <400> SEQUENCE: 5
W--> 275 Xaa Val Xaa Glu Ile Xaa Leu Met His Xaa Xaa Xaa Lys Xaa
      276 1               5                   10
      279 <210> SEQ ID NO: 6
      280 <211> LENGTH: 14
      281 <212> TYPE: PRT
      282 <213> ORGANISM: Artificial Sequence
      284 <220> FEATURE:
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      288 <220> FEATURE:
      289 <221> NAME/KEY: MISC_FEATURE
      290 <222> LOCATION: (1)..(1)
      291 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Gly,
Ser or
      292      Ala
      294 <220> FEATURE:
      295 <221> NAME/KEY: MISC_FEATURE
      296 <222> LOCATION: (1)..(14)
      297 <223> OTHER INFORMATION: At least one Xaa is 1 aminocyclopropane 1 carboxylic acid,
      298      1 amino cyclobutane carboxylic acid,
      299      1 aminocyclopentane 1 carboxylic acid, 1 amino cyclohexane
      300      carboxylic acid or alpha, alpha diethylglycine
      302 <220> FEATURE:
      303 <221> NAME/KEY: MISC_FEATURE
      304 <222> LOCATION: (3)..(3)
      305 <223> OTHER INFORMATION: Xaa can represent an alpha helix stabilizing residue, Ala or
Ser
      307 <220> FEATURE:
      308 <221> NAME/KEY: MISC_FEATURE
      309 <222> LOCATION: (11)..(11)
      310 <223> OTHER INFORMATION: Xaa represents homoarginine
      312 <220> FEATURE:
      313 <221> NAME/KEY: MOD_RES
      314 <222> LOCATION: (14)..(14)
      315 <223> OTHER INFORMATION: AMIDATION
      317 <400> SEQUENCE: 6
W--> 319 Xaa Val Xaa Glu Ile Gln Leu Met His Gln Xaa Ala Lys Trp
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/03/2005
PATENT APPLICATION: US/10/549,592   TIME: 14:15:42

Input Set : A:\Sequence Listing ASCII, Docket No. 0609.5150000.ST25.txt
Output Set: N:\CRF4\10032005\J549592.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1;  Xaa Pos. 1,3,10,11,12,13,14
Seq#:2;  Xaa Pos. 1,3,11
Seq#:3;  Xaa Pos. 1,3,11
Seq#:4;  Xaa Pos. 1,11
Seq#:5;  Xaa Pos. 1,3,6,10,11,12,14
Seq#:6;  Xaa Pos. 1,3,11
Seq#:7;  Xaa Pos. 1,3,11
Seq#:8;  Xaa Pos. 1,3,11
Seq#:9;  Xaa Pos. 1,3,11
Seq#:10; Xaa Pos. 1,3,11
Seq#:11; Xaa Pos. 1,3,11
Seq#:12; Xaa Pos. 1,3,11
Seq#:13; Xaa Pos. 11
Seq#:14; Xaa Pos. 8,21
Seq#:15; Xaa Pos. 1,3,11
Seq#:16; Xaa Pos. 11
Seq#:20; Xaa Pos. 11
Seq#:21; Xaa Pos. 1,3,11
Seq#:22; Xaa Pos. 1,3
Seq#:23; Xaa Pos. 1,3,11
Seq#:24; Xaa Pos. 1,11
Seq#:25; Xaa Pos. 1,11
Seq#:27; Xaa Pos. 1,3,11
Seq#:28; Xaa Pos. 1,3,11
Seq#:29; Xaa Pos. 1,3,11
Seq#:30; Xaa Pos. 1,3
Seq#:31; Xaa Pos. 1,3
Seq#:32; Xaa Pos. 1,3
Seq#:34; Xaa Pos. 1,3
Seq#:35; Xaa Pos. 1,3
Seq#:36; Xaa Pos. 1,3,8,11
Seq#:37; Xaa Pos. 3,11
Seq#:38; Xaa Pos. 3,11
Seq#:39; Xaa Pos. 3,11
Seq#:40; Xaa Pos. 1,3,11
Seq#:41; Xaa Pos. 1,3,11
Seq#:42; Xaa Pos. 1,3,11
Seq#:43; Xaa Pos. 1,3,11
Seq#:44; Xaa Pos. 1,3,11
Seq#:45; Xaa Pos. 1,3,11
Seq#:46; Xaa Pos. 1,3,11
Seq#:47; Xaa Pos. 1,3,11
Seq#:48; Xaa Pos. 1,3,11
Seq#:49; Xaa Pos. 1,3,11
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PATENT APPLICATION: US/10/549,592   TIME: 14:15:42

Input Set : **A:\Sequence Listing ASCII, Docket No. 0609.5150000.ST25.txt**
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Seq#:50; Xaa Pos. 1,3,11
Seq#:51; Xaa Pos. 1,11
Seq#:52; Xaa Pos. 1

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Output Set: **N:\CRF4\10032005\J549592.raw**

```
L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
M:341 Repeated in SeqNo=14
L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:829 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:970 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:1005 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1070 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:1490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1525 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:1560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:1595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:1700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:1735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
```

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L:1765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0